Insect Transmitted Diseases of Panama

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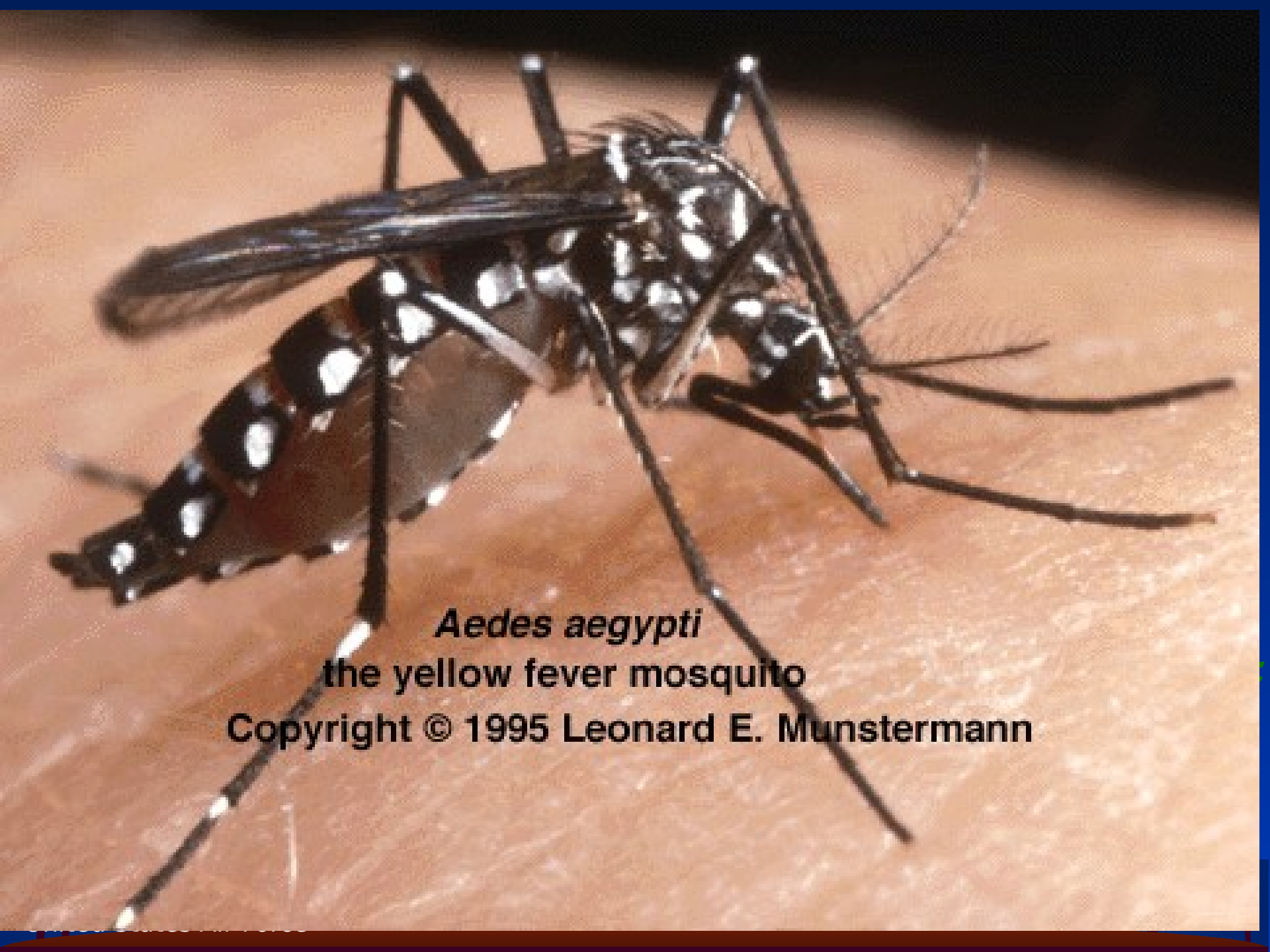
Overview

- 1) Discuss some of the important diseases spread by insects in Panama
- 2) Discuss ways to prevent acquiring these diseases (military and civilian)


Aedes aegypti
the yellow fever mosquito
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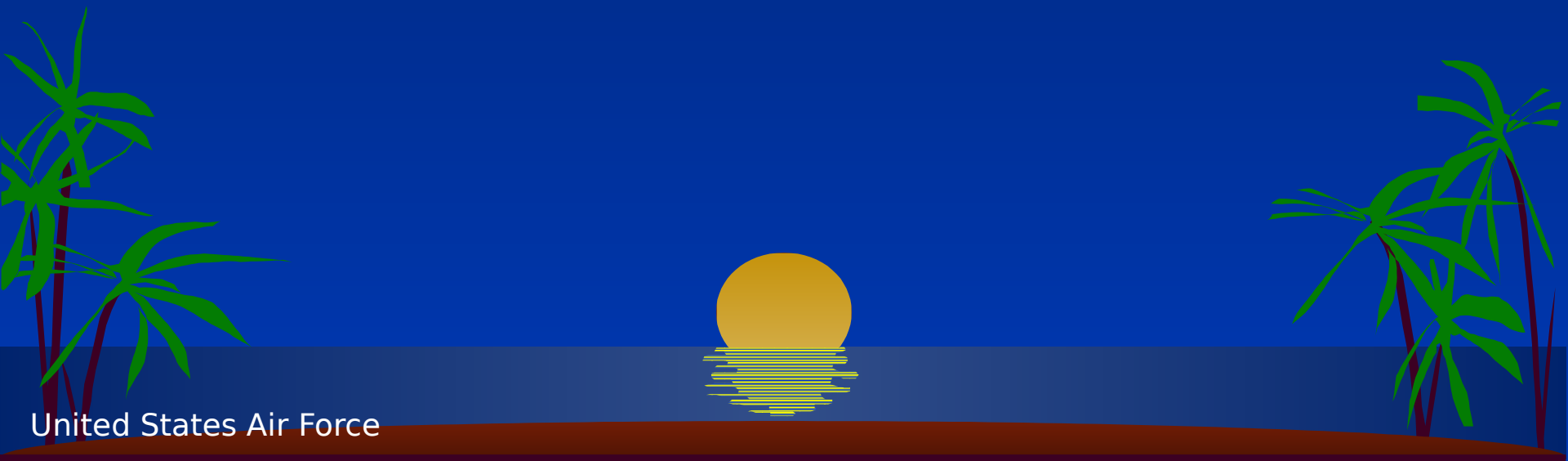
The Enemies

- MOSQUITOES
- black flies
- gnats
- sand flies
- lice
- fleas



Protection From Insect Bites

- wear clothing to cover as much skin as possible
- use bed nets
- apply insect repellent to exposed skin and clothing
- avoid high risk situations
  -outdoor activities from dusk to dawn
  -unscreened living accommodations

What Are The Important Diseases To Worry About?

- 1) malaria
- 2) yellow fever
- 3) dengue fever

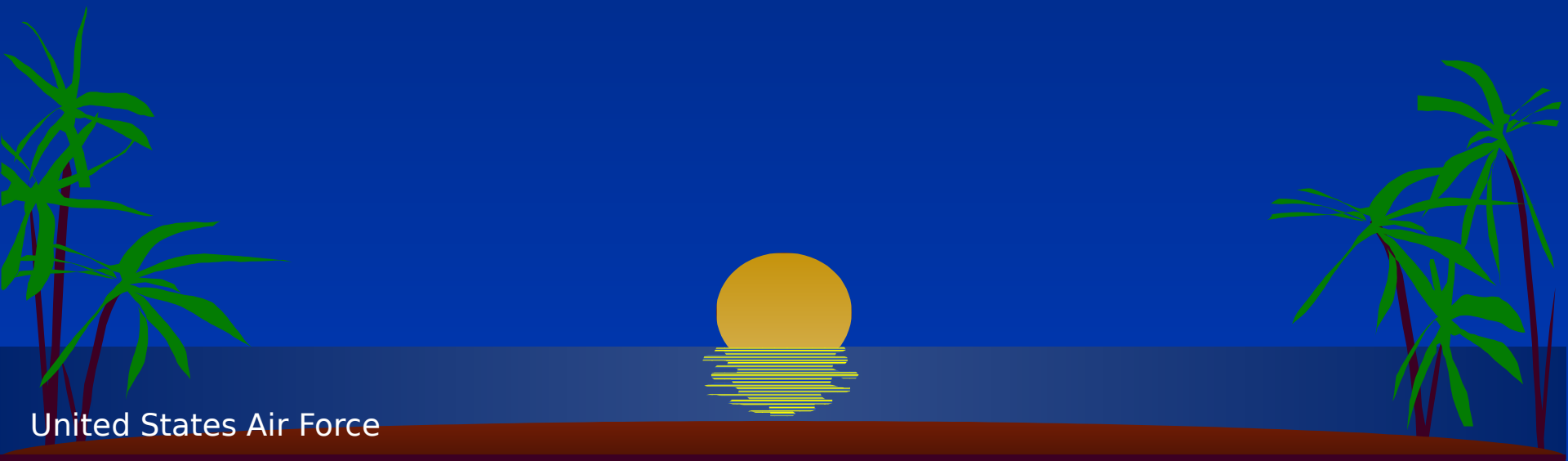
Malaria

- parasitic infection transmitted by mosquitoes
- mosquitoes out mainly at night
- early symptoms: fever, chills, aches, malaise
- late symptoms: anemia, kidney failure coma, death

High Risk Areas

- rural areas of eastern provinces (Darien and San Blas)
- northwestern provinces (Boca del Rio Verguas)
- around Lake Boyana and Lake Gatum

NO RISK IN THE CANAL ZONE, PANAMA CITY OR SURROUNDING VICINITY! (including Howard AFB)



If Traveling to High Risk Areas You Need To Take Prophylactic Medication

- high risk areas WEST of canal zone

take: CHLOROQUINE

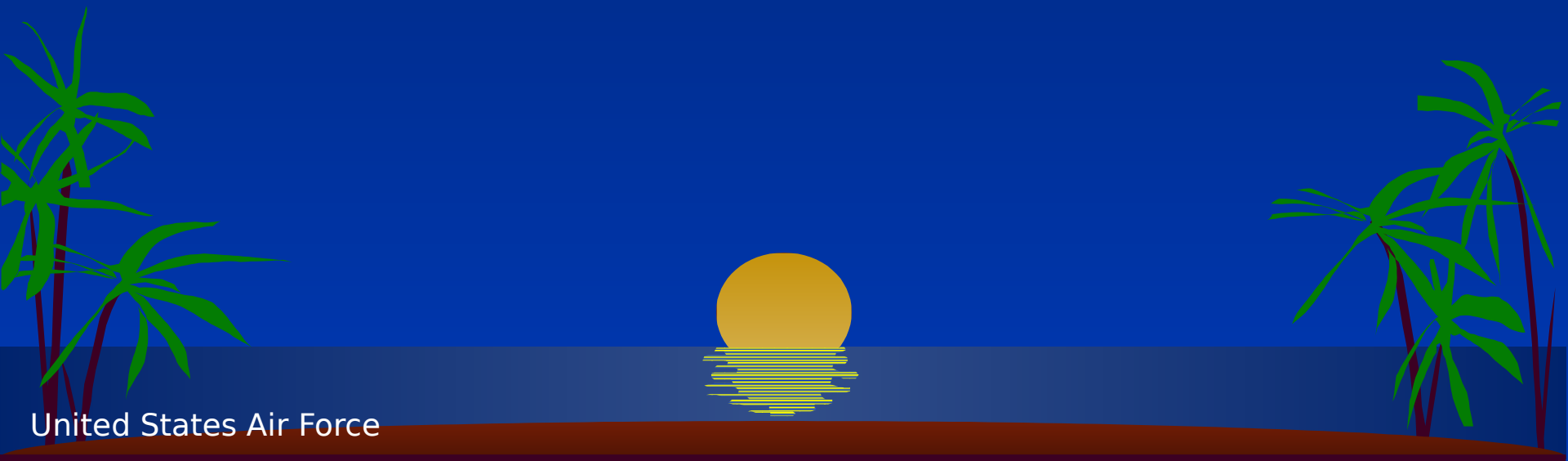
- high risk areas EAST of canal zone

take: MEFLOQUINE

However Mefolquine is not allowed to be taken by actively flying aviators because of pronounced dizziness

Chloroquine is allowable WITHOUT a waiver

so active flyers use doxycycline when traveling in chloroquine-resistant areas



How To Take

- chloroquine -

  1 pill (500 mg) once a week, starting 1 week before entering the malarious area, once a week while there and weekly for 4 weeks after leaving
- mefloquine -

  same except pill is 250 mg
- doxycycline -

  1 pill (100 mg) once a day starting the day before entering area and continuing for 4 weeks after leaving

Yellow Fever

- viral disease transmitted to humans by mosquito bite
- symptoms: fever, chills, headache, vomiting, jaundice, internal bleeding, kidney failure
- NO TREATMENT, THEREFORE PREVENTION IS KEY!

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Luckily Yellow Fever Is Very Rare in Central American Countries

- however many South American countries, including Colombia are yellow fever infected countries

Yellow Fever Vaccination is Required in Order to be World Wide Qualified

- one dose shot
- can be administered to adults and children greater then 9 months of age
- booster shot required every 10 years

Who Shouldn’t Get Immunized?

- infants under 4 months of age
- people with severe egg allergies
- pregnant woman
- people with dysfunctional immune system

Dengue Fever

- viral infection transmitted by mosquito bites in residential areas
- mosquitoes most active during the day, especially around dusk and dawn
- frequently found in and around human habitations
- symptoms: sudden onset high fever, severe headaches, joint and muscle pain, rash which develops 3-4 days after fever
- NO VACCINE OR TREATMENT, PREVENTION IS KEY!

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Since 1993, Dengue Fever has Occurred in Every Country From Mexico to Panama

- alternates between periods of epidemics and relative rareness

More Details on Insect Repellents

- most effective compound for exposed skin is DEET
- most effective when concentration is around 35%, avoid much higher concentrations
- avoid applying to eyes or mouth
- use 6-10% concentration for young children

More Details on Insect Repellents

- Clothing and bednets should be soaked in or sprayed with permethrin

Other Diseases Carried By Insect Bites in Panama

Filariasis

carried by: mosquito

symptoms: gross enlargement of legs and other extremities

treatment: limited

Other Diseases Carried By Insect Bites in Panama

Leishmaniasis (Kala-azar)

carried by: sand fly

symptoms: fever, weakness, swollen spleen

treatment: yes

Other Diseases Carried By Insect Bites in Panama

Onychocerciasis

carried by: black fly

symptoms: lumps under skin, itchy rash

blindness

treatment : yes

Other Diseases Carried By Insect Bites in Panama

Chagas Disease

carried by: reduvid bug

symptoms: early none or mild fever

late heart disease, enlarged intestines

treatment: limited

Review

- discussed some diseases endemic to Panama transmitted by insects
- discussed ways to prevent these diseases

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